

CLAIMS

1. A piling device, including:
  - a support frame having a lower end mounted on a footing;
  - 5 a mechanism for gripping a pile;
  - a mechanism for driving the pile into the ground;
  - the gripping mechanism and the piling mechanism being pivotally connected to and supported by the frame;
  - the pivotal connection of the gripping and driving mechanisms to
  - 10 the frame enabling a pile gripped by the gripping mechanism to be aligned in the desired orientation relative to the frame prior to being driven into the ground.
2. A device according to claim 1, wherein the pivotal connection enables
- 15 angular adjustment of a pile gripped by the gripping mechanism relative to the frame.
3. A device according to claim 1, wherein a pivotal adjustment actuator is provided, the actuator including at least one hydraulically actuated cylinder
- 20 connected between the frame, and the driving and/or gripping mechanisms.
4. A piling device, including:
  - a support frame having a lower end mounted on a footing;
  - 25 a mechanism for gripping a pile;
  - a mechanism for driving the pile into the ground;
  - the gripping mechanism and the piling mechanism being connected to and supported by the frame; wherein
  - the frame includes at least one opening provided in the side thereof
  - 30 to facilitate removal of the device from around a pile partially extending from the ground.

5. A device according to claim 4, wherein the opening is sized to allow a pile partially extending from the ground to pass there through in the event that the frame has to be moved during the piling operation.
- 5 6. A device according to claim 4, wherein the device includes two openings located on opposite sides of the frame.
7. A piling device, including:  
a support frame having a lower end mounted on a footing;  
10 a mechanism for gripping a pile;  
a mechanism for driving the pile into the ground;  
the gripping mechanism and the piling mechanism being connected to and supported by the frame; wherein  
the gripping mechanism is hydraulically operated.
- 15 8. A device according to claim 7, wherein, the gripping force applied by the gripping mechanism to a pile is adjustable.
9. A piling device, including:  
20 a support frame having a lower end mounted on a footing;  
a mechanism for driving a pile into the ground;  
the upper end of the pile driving mechanism is connected to the upper end of the frame and extends downwardly relative to the frame;  
a mechanism for gripping a pile; wherein  
25 the gripping mechanism is connected to and extends downwardly from the lower end of the pile driving mechanism.
10. A piling device according to claim 9, wherein the driving mechanism includes a driving frame and hydraulic cylinders extendable downwardly  
30 relative to the driving frame, wherein the lower end of the cylinders are connected to the gripping mechanism.

11. A piling device, including:
- a support frame having a lower end mounted on a footing;
  - a mechanism for gripping a pile;
  - a mechanism for driving the pile into the ground;
  - 5 the gripping mechanism and the piling mechanism being connected to and supported by the frame;
  - the footing including ground mounted footings and respective frame mounted footings;
  - the frame mounted footings being movably mounted on the
  - 10 respective ground mounted footings; wherein
  - the footing enables movement of the piling device.
12. A device according to claim 11, wherein the frame mounted footings are movably mounted on the respective ground mounted footings by the
- 15 inclusion of roller bearing assemblies between the frame mounted footings and ground mounted footings.
13. A device according to claim 12, wherein the bearings are connected to the frame mounted footings and/or ground mounted footings.
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14. A device according to claim 11, wherein vertically and/or horizontally orientated hydraulic cylinders are connected to and extend between each pair of frame and ground mounted footings, to facilitate movement of the device in the vertical and/or horizontal directions relative to the ground and
- 25 ground mounted footings.
15. A device according to claim 11, including counterweights mounted on the frame to prevent the frame from moving during the piling operation.
- 30 16. A device according to claim 15, wherein the device can be moved with the counterweights mounted on the frame.

- 17. A piling device substantially as herein described and illustrated.**